

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

LISTING OF CLAIMS:

1. (CURRENTLY AMENDED) A method for making a spin valve comprising:
  - a) providing a substrate;
  - b) depositing a first ferromagnetic layer having a first surface on the substrate;
  - c) depositing a spacer layer having a second surface;
  - d) depositing a second ferromagnetic layer, wherein the spacer layer is disposed between the first and second ferromagnetic layers; and
  - e) ~~exposing one or more of at least the first and second surfaces~~ surface to an oxygen partial pressure, then decreasing the oxygen partial pressure before depositing a subsequent layer.
  
2. (CURRENTLY AMENDED) ~~The method of claim 1,~~ A method for making a spin valve comprising:  
providing a substrate;  
depositing a first ferromagnetic layer having a first surface on the substrate;  
depositing a spacer layer having a second surface;  
depositing a second ferromagnetic layer, wherein the spacer layer is disposed  
between the first and second ferromagnetic layers; and  
exposing one or more of the first and second surfaces to an oxygen partial  
pressure, then decreasing the oxygen partial pressure before depositing a  
subsequent layer,  
wherein one or more of the first and second surfaces are exposed to an oxygen partial pressure of between about  $1 \times 10^{-7}$  Torr and about  $5 \times 10^{-5}$  Torr.

3. (ORIGINAL) The method of claim 2, wherein the oxygen partial pressure decreases below an oxygen partial pressure level used in exposing the first and second surfaces before the depositions of the spacer layer and the second ferromagnetic layer.
4. (ORIGINAL) The method of claim 3, wherein the first surface is exposed to the oxygen partial pressure before depositing the spacer layer.
5. (ORIGINAL) The method of claim 3, wherein the second surface is exposed to the oxygen partial pressure before depositing the second ferromagnetic layer.
6. (ORIGINAL) The method of claim 1, wherein an ion beam sputtering process is used for depositions of the first ferromagnetic, second ferromagnetic and spacer layers.
7. (ORIGINAL) The method of claim 1, wherein oxygen molecules are directed toward the substrate, and a substrate shutter is fully open for the first and second surfaces to be directly exposed to the oxygen.
8. (NEW) The method of claim 1, wherein the oxygen partial pressure is decreased by stopping a flow of oxygen.
9. (NEW) A method for making a spin valve comprising:
  - providing a substrate;
  - depositing a first ferromagnetic layer having a first surface on the substrate;
  - exposing the first surface to an oxygen partial pressure, then decreasing the oxygen partial pressure before depositing a subsequent layer;
  - depositing a spacer layer above the first surface, the spacer layer having a second surface;
  - exposing the second surface to an oxygen partial pressure, then decreasing the oxygen partial pressure before depositing a subsequent layer, and

depositing a second ferromagnetic layer above the second surface, wherein the spacer layer is disposed between the first and second ferromagnetic layers.

10. (NEW) The method of claim 2, wherein the oxygen partial pressure decreases below an oxygen partial pressure level used in exposing the first and second surfaces before the depositions of the spacer layer and the second ferromagnetic layer.
11. (NEW) The method of claim 1, wherein an ion beam sputtering process is used for depositions of the first ferromagnetic, second ferromagnetic and spacer layers.
12. (NEW) The method of claim 1, wherein oxygen molecules are directed toward the substrate, and a substrate shutter is fully open for the first and second surfaces to be directly exposed to the oxygen.